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ABSTRACT

The present study examined the relationship of psychological androgyny with ego development in the context of Loevinger's theory, and with psychosocial crisis resolution from the perspective of Erikson's theory. A sample of 30 male and 30 female adults completed the Bem Sex Role Inventory, the Washington University Sentence Completion Test and the Inventory of Psychosocial Development (IPD). The androgynous individuals were predominate in the higher stages of Loevinger's hierarchical model of ego development, with the masculine sex-typed orientation falling in between the androgynous and feminine sex-typed groups. The highest scores on psychosocial personality development, as assessed by the IPD, were obtained by those with an androgynous sex-role orientation, followed by those with masculine, feminine and undifferentiated orientations, in that order. These results support the view that psychological androgyny represents an added adaptive capacity that can be developed in association with the development of higher ego functioning. These findings applied equally to both sexes and all age groups. (Author)

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ANDROGYNY, EGO DEVELOPMENT AND PSYCHOSOCIAL CRISIS RESOLUTION[1]

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Running head: Androgyny and ego development

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Abstract

The present study examined the relationship of psychological androgyny with ego development in the context of Loevinger's theory, and with psychosocial crisis resolution from the perspective of Erikson's theory. A sample of 30 male and 30 female adults completed the Bem Sex Role Inventory, the Washington University Sentence Completion Test and the Inventory of Psychosocial Development. The androgynous individuals were predominate in the higher stages of Loevinger's hierarchical model of ego development, with the masculine sex-typed orientation falling in between the androgynous and feminine sex-typed groups. The highest scores on psychosocial personality development, as assessed by the IPD, were obtained by those with an androgynous sex-role orientation, followed by those with masculine, feminine and undifferentiated orientations, in that order. These results support the view that psychological androgyny represents an added adaptive capacity that can be developed in association with the development of higher ego functioning. These findings applied equally to both sexes and all age groups.

Androgyny, Ego Development and Psychosocial Crisis Resolution in Adults

There is considerable research support for Bem's (1974) contention that psychological androgyny, the self-attribution of both masculine and feminine qualities, is associated with higher levels of psychological functioning than masculine or feminine sex-typing (Bem, 1975; 1977; Bem & Lenny, 1976; Bem, Martyna, & Watson, 1976; Flaherty & Dusek, 1980; Spence, Helmreich & Stapp, 1975). Some have reasoned further, based on Loevinger's model of ego development and Erikson's theory of psychosocial development, that androgyny may be the most mature outcome of a process of development of sexual identity.

Loevinger's model views the ego as the "framework of meaning which one subjectively imposes on experience" (Hauser, 1976, p. 930). This framework evolves through a series of stages, or ego levels.

Block (1973) postulated that sexual identity develops in a hierarchical, unidirectional fashion which is parallel to Loevinger's ego stages. The Impulsive and Self-Protective

stages, according to Block, are characterized by preoccupations with self-assertion, self-expression, and self-extension, characteristics strongly associated with conventionally masculine qualities. At the Conformity level, there is a "critical bifurcation in the sex role development of boys and girls" (Block, 1973, p. 514), and the child acquires the sex-role stereotypes which conform to the cultural definitions of appropriate male and female behavior. In the Conscientious stage, an ideal self, distinguishable from the real self, can be conceptualized, and a concern for moral correctness tempers stereotypic role playing. Finally, in the Autonomous stage, internal differentiation and active coping with conflicting aspects of the self allow the individual to begin to express a full range of behaviors, masculine or feminine, and true psychological androgyny becomes possible.

Erikson's theory is, like Loevinger's, a hierarchical stage theory, encompassing the full life span, in which "the ability to cope successfully with the demands of later developmental stages rests upon the foundation established during the earlier stages of the life-span" (Waterman & Whitbourne, 1982, p. 122). Each stage is viewed as a crisis, the content of which is determined by the individual's developing capacities and the demands of the external social environment. If androgyny represents the most flexible and adaptive form of sex-role functioning in adulthood,

as the research would indicate, then individuals who have successfully resolved the stage-specific crises of early development should be classifiable as androgynous more frequently than those with less successful resolutions.

Studies designed to test Block's theory that ego development coincides with the development of sexual identity have been conducted on samples of adolescents (Lorr & Manning, 1978; Suziedelis & Lorr, 1980), college students (Schiff & Koopman, 1978), and adults (Liberman & Gaa, 1978; Nettles, 1978) with generally negative, or at best minimally supportive results. Studies conducted from an Eriksonian perspective have yielded more promising findings. Waterman and Whitbourne (1982), using the Inventory of Psychosocial Development to assess resolution of Eriksonian stage-specific crises, showed androgynous individuals consistently scored highest on all six scales, followed by the moderate scores of the masculine and feminine subjects. Other research, focused specifically on the relationship between outcomes of the identity crisis and endorsement of masculine and feminine qualities, have shown androgyny to be associated with optimum identity development (Orlofsky, 1977; Prager, 1983; Tzuriel, 1984).

The strongest evidence in favor of the notion that androgyny represents the most mature outcome of a life-long developmental process lies in the results of Waterman and Whitbourne's study;

however, it is possible, according to the authors themselves, that some portion of the common variance of their measures of psychosocial maturity and sexual identity may have been a consequence of the similar methodology of the two (p. 132). If a relationship was found between sexual identity and a tool of a very different format, such as that generally used to assess ego development, it would suggest that the relationship found by Waterman and Whitbourne was due to more than test similarity.

For the current study, it was hypothesized that a relationship could be found between sexual identity and level of ego development in adulthood, and between sexual identity and the resolution of earlier psychosocial crises. Based on Block's notion that the integration of masculinity and femininity represents the most developmentally mature level of functioning, androgynous adults were expected to be found at higher levels of ego development than sex-typed adults, and than those in the undifferentiated group, who are restricted in the expression of both masculine and feminine traits. Androgynous individuals were also expected to have significantly more successful psychosocial crisis resolutions than sex-typed individuals who, in turn, were expected to have more successful resolutions than undifferentiated subjects.

Method

Sample

Participants were 30 male and 30 female volunteers, who responded to the personal request of the second author to participate in "a study designed to examine opinions, feelings and attitudes over a variety of different dimensions." The age range of the sample was 20-57 years, with a mean of 34 years. Twenty-five percent of the sample were single, 58.3% were married, and 16.7% were divorced. Fifty-eight percent were at least college-educated, while the other 42% had high school diplomas alone, or had some college.

Procedure

Of the 112 questionnaires distributed, 54% were completed and returned. The participants were contacted by the second author personally and after an explanation of the instructions were asked to complete the questionnaire in their choice of setting with no time constraints. Participants completed a demographic information form, the Bem Sex Role Inventory (BSRI), the Inventory of Psychosocial Development (IPD), and the Washington University Sentence Completion Test (SC). The order of the test forms was varied across subjects in order to guard against artifacts due to order. The questionnaires were returned

by mail.

Instruments

The Bem Sex Role Inventory (BSRI) (Bem 1974) consists of a list of 60 personality characteristics on which a respondent gives a self-rating using a 7 point scale. Examples of BSRI characteristics are: self-reliant, yielding, conceited, affectionate, sympathetic, competitive, inefficient and sincere. The BSRI contains a 20-item femininity scale and a 20-item masculinity scale. The method of constructing these scales has been detailed elsewhere (Bem, 1974; 1979; Pedhazur & Tetenbaum, 1979). The participants were categorized as masculine, feminine, androgynous or undifferentiated in sex-role orientation on the basis of median splits on the masculine and feminine scale scores. A median of 4.9 was used, based on norms from previous studies from similar populations (Hyde & Phillis, 1979; Pedhazur & Tetenbaum, 1979; Waterman & Whitbourne, 1982). The four-fold classification was established as follows: 1) the masculine group consisted of those participants who, regardless of sex, scored above the median on the masculine items and below the median on the feminine items, 2) the feminine group consisted of participants who scored below the median on the masculine items and above the median on the feminine items; 3) the androgynous group consisted of participants who scored above the medians on

both masculine and feminine items; and 4) the undifferentiated group consisted of participants who scored below the medians on both scales.

Ego development was measured with the Washington University Sentence Completion Test (SC) (Loevinger & Wessler, 1970), which consists of 36 stems or incomplete sentences the respondent completes as he or she sees fit. Examples of incomplete stems are: "When they talked about sex _____;" "The thing I like about myself is _____;" and "My main problem is _____." Participants' responses were rated according to which ego level was best represented, i.e. Impulsive stage, Self-Protective stage, Conformist stage, Conscientious stage, Autonomous stage, and Integrated stage.

Each item was scored separately, without awareness of ratings of other items. After each of the 36 items was rated, the automatic ogive rules, developed by Loevinger & Wessler (1970), and Loevinger, Wessler & Redmore (1970) were used to determine the total protocol rating (TPR). Scores were then matched with the corresponding stage or level of ego functioning.

Constantinople's Inventory of Psychosocial Development (IPD) (Constantinople, 1969) consists of 60 brief phrases to be rated on a 7-point scale ranging from "definitely most uncharacteristic of you" to "definitely most characteristic of you." Examples of items are: warm and friendly; pessimistic, little hope;

ineffective, don't amount to much; and excel in my work. The inventory yields scores for the personality components associated with the first six stage-specific crises in Erikson's theory: Basic Trust vs. Mistrust; Autonomy vs. Shame & Doubt; Initiative vs. Guilt; Industry vs. Inferiority; Identity vs. Identity Diffusion; and Intimacy vs. Isolation. There are ten items per scale, five representing the favorable resolution and five representing the unfavorable resolution. Scores for each stage are derived by subtracting the sum of the unfavorable items from the sum of the favorable items. A full score is derived by summing across the six stage scales. Extensive work supporting the validity of the IPD is reported by Waterman & Whitbourne (1981).

Personnel

After training in the process of scoring the SC tests, the second author and another rater, a senior-level undergraduate, independently scored 36 of the 60 questionnaires used in this study. Each item was scored on all questionnaires before the rater proceeded to score the next item and the stack of questionnaires was shuffled between the scoring of each item. Inter-rater reliability, using TPR's, was 86% on the 36 questionnaires scored by both raters. The remaining twenty-four were scored by one rater each.

Results

Preliminary analyses

Chi squared analyses were conducted to determine the degree of association between sex, age, marital status, education, and ego development and Eriksonian crisis resolution, respectively. None of these associations was significant. However, a 2 (sex) x 4 (sex-role orientation) chi squared test showed a significant effect (χ^2=38.52, dF=3, p<.001). An examination of the frequencies indicated that this was due to an almost complete absence of cross sex-typing in the sample. The androgynous (64.3% female; 35.7% male) and undifferentiated (40.0% female; 60.0% male) groups were distributed roughly equally by comparison.

Ego development and sex-role orientation

A 4 x 3 contingency table was devised and chi squared analysis was computed to test for an association between the stages of ego development, as measured by the SC test total protocol rating (TPR), and sex-role orientation, as assessed by the BSRI. Results are displayed in Table 1.

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INSERT TABLE 1 ABOUT HERE.

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This association was highly significant (χ^2=28.07, dF=6, p<.0001), supporting the hypothesis that a significant association would be found between ego development and sex-role orientation. A closer examination of Table 1 indicates further that, as predicted, androgynous participants were found most frequently in the highest level of ego development identified in this sample, the Autonomous stage (83.3%). Feminine sex-typed individuals had a significantly smaller percentage at this stage (16.7%) with no masculine sex-typed or undifferentiated subjects at all at this stage. In the Conscientious stage, the ego level just below the Autonomous stage, the masculine orientation was found most frequently (52.0%), followed by the androgynous (32.0%), feminine (16.0%) and undifferentiated (0%) sex-role orientations.

The Conformist stage, the lowest level of ego development found in the sample, was most frequently associated with feminine sex-typing (44.8%), followed by masculine sex-typing (34.5%), and the undifferentiated (17.2%) and androgynous orientations (3.4%). It is interesting to note that all of those in the undifferentiated sex-role category fell into the Conformist stage of development.

The total protocol ratings were more compressed than expected. No subject scored less than the Conformist stage, nor did anyone fall into the Integrated stage of ego development.

Sex-role orientation and psychosocial crisis resolution

A one-way MANOVA was conducted to test for differences among the four sex-role orientations on the six IPD subscales and the total IPD score. Significant differences were found among the four groups on five of the six subscales and the total IPD scale score (all but Basic Trust vs. Mistrust). Means, standard deviations and levels of significance are shown in Table 2.

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INSERT TABLE 2 ABOUT HERE.

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Duncan multiple range tests were conducted to test for differences between individual means. Androgynous subjects scored significantly higher than the other three groups on all subscales, and the total IPD score. Masculine subjects scored higher than those in the feminine group on Initiative vs. Guilt, while feminine subjects scored higher than masculine ones on Identity vs. Identity Diffusion. Both groups of sex-typed individuals scored higher than the undifferentiated ones on the Autonomy, Industry and Intimacy scales, and on the total IPD scale.

Discussion

The results reported provide support for the hypothesis that androgyny represents a higher level of psychological development than sex-typing along stereotypic lines. Of the three levels of ego development found in the current sample, androgynous individuals dominated the highest level, the Autonomous stage. Only one androgynous subject was located in the Conformist stage, the lowest ego stage found in the sample. In contrast, all the undifferentiated subjects were located in the Conformist stage. Masculine sex-typed subjects were divided fairly evenly between the Conformist and Conscientious stages, while the feminine sex-typed participants were predominately located in the Conformist group.

The current work, then, provides empirical support for Block's (1973) theory that the highest levels of ego functioning will encompass an awareness and ultimately an integration of those traits and values that are conventionally considered masculine or feminine. The large percentage of sex-typed individuals that fell into the Conformist stage of development further support her notion that this stage corresponds to a time of "critical branching" in the sex-role development of males and females. Males, at this time, are encouraged to nurture those qualities Bakan (1966) identified as agentic, i.e. the self-assertive, self-expressive traits, while females are

encouraged to develop communal traits, or those which foster a spirit of cooperation, generosity and altruism. Each sex develops one set of characteristics at the expense of the other. The present findings also indicate that the restricted undifferentiated sex-role orientation is most likely associated with lower levels of ego development.

With few exceptions, the pattern of results reported for sex-role orientation and Eriksonian crisis resolution paralleled the findings reported earlier by Waterman and Whitbourne (1982), and upheld the prediction that psychological androgyny would be associated with successful resolutions of earlier developmental crises. Androgynous individuals scored significantly higher than all other groups on all the scales of the IPD. (Results for Basic Trust vs. Mistrust followed the same pattern as the other scales, but did not reach significance.) Masculine and feminine sex-typed subjects, although differing from each other on the Initiative and Identity scales, in balance were exceptionally similar in their relative scores on the six IPD subscales. Undifferentiated participants, with the exception of the Initiative vs. Guilt scale, were consistently lowest. These results, then, provide reasonably unambiguous support for the notion that the integration of both masculine and feminine traits into the self-concept is related to the successful resolution of important developmental crises, while restriction represented by

sex-typing or, more dramatically, by an undifferentiated orientation, is related to less successful coping with psychosocial crises.

The two sets of results, taken together, provide the strongest support to date, given the limitations of the cross-sectional design of this study, for the notion that psychological androgyny, the simultaneous endorsement of both masculine and feminine personality characteristics, may represent a higher, more mature level of development than sex-typing. Although part of the common variance between the IPD and the BSRI may again be due to their similar psychometric properties, the parallel finding with the SC test, an instrument very different in construction, indicates that the current findings are unlikely to be explainable solely by artifacts of test similarity.

The one anomolous result which merits further discussion is the relatively greater number of masculine sex-typed subjects in the Conscientious stage compared to the greater concentration of feminine sex-typed subjects in the lower, Conformity stage. Critics of Bem's theory of psychological androgyny and personal effectiveness (e.g. Lubinski, Tellegren & Butcher, 1981; 1983) have pointed out that, since androgyny is defined as the integration of both masculine and feminine qualities, it is possible that the association of androgyny and effectiveness may be due to one or the other of its components. In their review,

Kelly and Worrell (1977) conclude that, in general, individuals described as androgynous or masculine sex-typed look best, while those who are feminine sex-typed or undifferentiated look worst. The greater relative importance of masculinity over femininity for effective psychological functioning seems to be evident in the present study, and calls into question whether androgyny has any consistent adaptive advantages over masculinity alone. In support of the unique adaptive advantage of androgyny, the androgynous group in this study, although small, was divided among the two highest ego levels, while the masculine group was distributed across the two lower ones. In addition, the significantly higher IPD scores of androgynous participants relative to the masculine ones further indicate the adaptive advantage of androgyny over masculine sex-typing.

The results of the present study provide evidence for the contention that psychological androgyny is associated with developmental maturity in adulthood, and seems to rest on a foundation of successful coping with developmental issues from the early part of the life span. These findings were consistent for both sexes, regardless of educational level, marital status, or age. Since developmental theory cannot be tested directly by a cross-sectional study like the present one, these findings would seem to indicate that the hypotheses tested in the current work merit longitudinal study.

Table 1

CROSSTABULATION OF EGO DEVELOPMENT STAGE BY SEX-ROLE ORIENTATION

BSRI RATING	TPR TOTAL SC						TOTAL
	Conformist I-3		Conscientious I-4		Autonomous I-5		
	N	%	N	%	N	%	N
Masculine	10	34.5	13	52.0	0	0.0	23
Feminine	13	44.8	4	16.0	1	16.7	18
Undifferentiated	5	17.2	0	0.0	0	0.0	5
Androgynous	1	3.4	8	32.0	5	83.3	14
TOTAL	29	100.0%	25	100.0%	6	100.0%	60

Table 2

Means and Standard Deviations of IPD Ego Stages and BSRI Ratings

BSRI Rating	N	IPD 1		IPD 2		IPD 3		IPD 4		IPD 5		IPD 6			
		Basic Trust vs. Basic Mistrust		Autonomy vs. Shame & Doubt		Initiative vs. Guilt		Industry vs. Inferiority		Identity vs. Identity Diffusion		Intimacy vs. Isolation		IPD TOTAL	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Masculine	23	15.00	5.9	9.43	2.8	15.26	7.7	14.65	7.0	8.91	4.5	14.61	5.8	78.74	24.7
Feminine	18	14.83	8.4	9.33	4.0	10.39	5.7	11.44	6.1	10.22	7.0	15.06	5.4	71.72	30.9
Undifferentiated	5	8.80	5.9	6.20	5.8	11.20	9.2	10.80	6.8	8.60	5.1	8.20	5.7	53.80	34.0
Androgynous	14	19.21	4.8	14.50	5.3	18.14	4.5	20.07	5.0	16.00	2.7	21.2	2.5	109.0	13.1
Total Population	60	15.41	6.9	10.31	4.7	14.13	7.1	14.63	7.0	10.93	5.8	15.75	6.1	81.83	30.1

* All Mean Differences were significant at p <.01 or less except Basic Trust.

References

Bakan, D. (1966) The Duality of Human Existence. Chicago: Rand McNally.

Bem, S. L. (1974) The Measurement of Psychological Androgyny. Journal of Consulting and Clinical Psychology, 42, 155-163.

Bem, S. L. (1975) Sex-role Adaptibility: One Consequence of Psychological Androgyny. Journal of Personality and Social Psychology, 31, 634-643.

Bem, S. L. (1979) Theory and Measurement of Androgyny: A Reply to Pedhazur and Tetenbaum and Locksley - Colten Critiques. Journal of Personality and Social Psychology, 37, 1047-1054.

Bem, S. L. (1981) Gender schema Theory: A Cognitive Account of Sex-typing. Psychological Review, 88, 354-364.

Bem, S. L. and Lenney, E. (1976) Sex-typing and the Avoidance of Cross-sex Behavior. Journal of Personality and Social Psychology, 33, 48-54.

Bem, S. L., Martyna, W. & Watson, C. (1976) Sex-typing and Androgyny: Further Explorations of the Expressive Domain. Journal of Personality and Social Psychology, 34, 1016-1023.

Block, J. H. (1973) Conceptions of Sex role: Some Cross-cultural and Longitudinal Perspectives. American Psychologist, June, 512-526.

Constantinople, A. (1969) An Eriksonian Measure of Personality Development in College Students. Developmental Psychology, 1, 357-372.

Erikson, E. H. (1963) Childhood and Society, New York: Norton.

Flaherty, J. F. & Dusek, J. B. (1980) An investigation of the Relationship Between Psychological Androgyny and Components of Self-Concept. Journal of Personality and Social Psychology, 38, 984-992.

Hauser, S. T. (1976) Loevinger's Model and Measure of Ego Development: A Critical Review. Psychological Bulletin, 83, 928-955.

Hyde, J. & Phillis, D. (1979) Androgyny Across the Life Span. Developmental Psychology, 15, 334-336.

Kelly, J. & Worrell, J. (1977) New Formulations of Sex Roles and Androgyny: A Critical Review. Journal of Consulting and Clinical Psychology, 45, 1101-1115.

Liberman, D. & Cea, J. P. (1978, August) Androgyny and Moral and Ego Development. Paper presented at the Annual Meeting, American Psychological Association, Toronto, Ontario.

Loevinger, J. & Wessler, R. (1970) Measuring Ego Development 1. Construction and Use of a Sentence Completion Test. San Francisco, Jossey-Bass.

Loevinger, J., Wessler, R. and Redmore, C. (1976) Measuring Ego Development 2. Scoring Manual for Women and Girls. San

Francisco: Jossey Bass.

Lorr, M. & Manning, T. T. (1978) Personality Correlates of the Sex-role types. Journal of Clinical Psychology, 34, 884-888.

Lubinski, D., Tellegren, A. & Butcher, J. (1983) Masculinity, Femininity, Androgyny Viewed and Assessed as Distinct Concepts. Journal of Personality and Social Psychology, 44, 428-439.

Nettles, E. J. (1978, August) The Relationship of Ego Development and Sex-role Conception. Paper presented at the Annual Meeting, American Psychological Association. Toronto, Ontario.

Orlofsky, J. L. (1977) Sex-role Orientation, Identity Information and Self-Esteem, in College Men and Women. Sex Roles, 3, 561-575.

Pedhazur, E. and Tetenbaum, T. (1979) Bem Sex-Role Inventory: A Theoretical and Methodological Critique. Journal of Personality and Social Psychology, 37, 996-1016.

Prager, K. J. (1983) Identity Status, Sex-role Orientation, and Self-esteem in Late Adolescent Females. The Journal of Genetic Psychology, 143, 159-167.

Schiff, E. and Koopman, E. J. (1978) The Relationship of Women's Sex-role Identity to Self-esteem, and Ego Development. The Journal of Psychology, 98, 299-305.

Spence, J. T., Helmreich, R. & Stapp, J. (1975) Ratings of Self and Peers on Sex Role Attributes and Their Relation to Self-esteem and Conceptions of Masculinity and Femininity. Journal of Personality and Social Psychology, 32, 29-39.

Suziedelis, A. and Lorr, M. (1980, September) Androgyny and Ego Development: An Unexpected Finding. Paper presented at the Annual Meeting, American Psychological Association, Montreal, Quebec.

Tzuriel, D. (1984) Sex-role Typing and Ego Identity in Israeli, Oriental and Western Adolescents. Journal of Personality and Social Psychology, 46, 440-457.

Waterman, A. S. & Whitbourne, S. K. (1981) The Inventory of Psychosocial Development: A Review and Evaluation. JSAS Catalog of Selected Documents in Psychology, 11, (1), 5.

Waterman, A. S. & Whitbourne, S. K. (1982) Androgyny and Psychosocial Development Among College Students and Adults. Journal of Personality, 50, 121-133.